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10/038,451	01/03/2002	Masaya Okita	Soyu C4B	8378

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EXAMINER	
KUMAR, SRILAKSHMI K	
ART UNIT	PAPER NUMBER
2629	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/038,451	OKITA, MASAYA	
	Examiner	Art Unit	
	SRILAKSHMI K. KUMAR	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 November 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *38-41* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *38-41* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

The following office action is in response to amendment, filed on 11/02/2010. Claims 38-41 are pending. Claims 38, 39 and 41 have been amended.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 38-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamashita et al (US 4,795,239) in view of Majima (US 4,938,570).

As to independent claims 38 and 40, Yamashita et al teach a method for driving liquid crystal for a liquid crystal display (11) device having a liquid crystal panel sandwiching liquid crystal between two electrodes that are disposed between two polarizing plates (col. 1, lines 6-11), comprising: applying a voltage (voltage S1'-Sm') corresponding to image data (COM') between the two electrodes and thereby depicting an image on the liquid crystal panel (Fig.1); and applying a voltage (VITO, a constant voltage) between the two electrodes.

Yamashita et al do not explicitly state where the liquid crystal used in the display is a nematic liquid crystal or wherein the nematic liquid crystal does not change into a different phase. It is well known in the art that the liquid crystal is nematic as is the most common. Further, Majima teach using nematic liquid crystal in col. 4, lines 44-45 and where the LC does not change phase. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a nematic liquid crystal as taught by Majima into the LCD system

of Yamashita et al in order for proper excitation of the liquid crystal, and where nematic liquid crystal is advantageous as it ahs the optical properties of a uniaxial crystal.

Yamashita et al do not teach where a voltage is applied in each frame period, and thereby erasing the image depicted by the voltage corresponding to the image data on the liquid crystal panel within the same frame period. Majima teach the application of a voltage in each frame period in col. 2, lines 49-68, and col. 5, lines 43-52. Majima teaches an erasure voltage that erases the image displayed in col. 5, lines 43-52. It would have been obvious to one of ordinary skill in the art to include where the appropriate voltage is applied in each frame period in order to have smaller time periods for the driving to improve timing and display quality, and further to include where the appropriate voltage erases the image in each frame as taught by Majima into the liquid crystal display of Yamashita et al in order for improving uniformity of the display and images.

As to dependent claims 39 and 41, limitations of claim 38, and further comprising, Majima teach wherein erasure of the image in each frame period is affected by blacking the liquid crystal panel (col. 5, lines 43-52, where a full erasure is performed, thus constituting blacking the liquid crystal panel).

Response to Arguments

3. Applicant's arguments filed November 2, 2010 have been fully considered but they are not persuasive.

Applicant argues where the prior art of Yamashita et al does not teach the application of a voltage corresponding to image data between the two electrodes. Examiner, respectfully, disagrees. The voltage corresponding to the image data is applied between the two electrodes as

is shown in col. 4. Applicant states on page 5of the response that Yamashita et al does teach a voltage between the two electrodes.

Applicant further argues where the prior art of Yamashita et al do not teach a constant voltage being applied. Applicant does not claim a constant voltage in the claimed limitations. Applicant only claims a voltage. Further, Yamashita et al teach that the voltage VITO in Fig. 2 is constant during the scanning interval.

Applicant argues where the liquid crystal panel of Majima is different than that of Yamashita et al, therefore not combinable. Examiner, respectfully disagrees. The prior art of Majima teaches an LCD sandwiching nematic LC and the properties of the nematic LC. The prior art of Yamashita teaches sandwiching LC, however is silent with respect to the type of LC used. Majima teach the application of a voltage in each frame period in col. 2, lines 49-68, and col. 5, lines 43-52. Majima teaches an erasure voltage that erases the image displayed in col. 5, lines 43-52. The combination is proper as the teachings of Majima is directed to the LC and its properties. Applicant further argues where Majima et al do not teach application of an image data corresponding voltage between two electrodes. This feature is taught by Yamashita et al.

As shown above, the rejection is maintained and made FINAL.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to 3 whose telephone number is (571)272-7769. The examiner can normally be reached on 7:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sue Lefkowitz can be reached on 571 272 3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SKK
1/12/2011

/Srilakshmi K Kumar/
Primary Examiner
Art Unit 2629